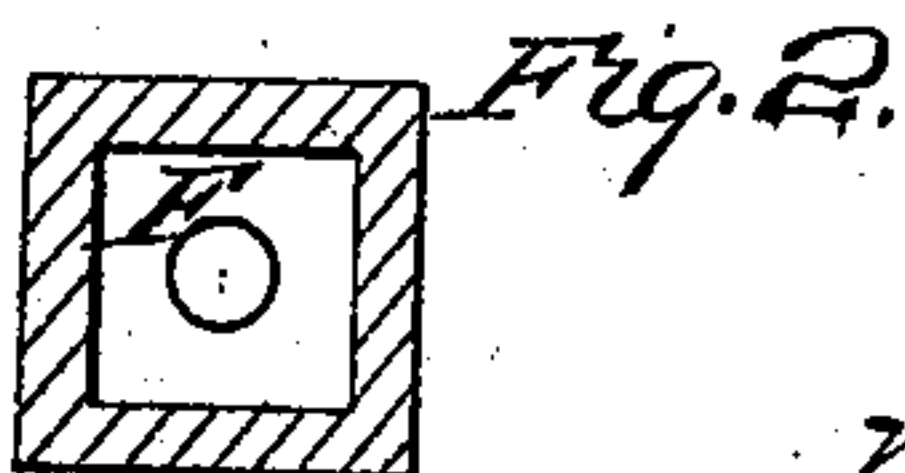
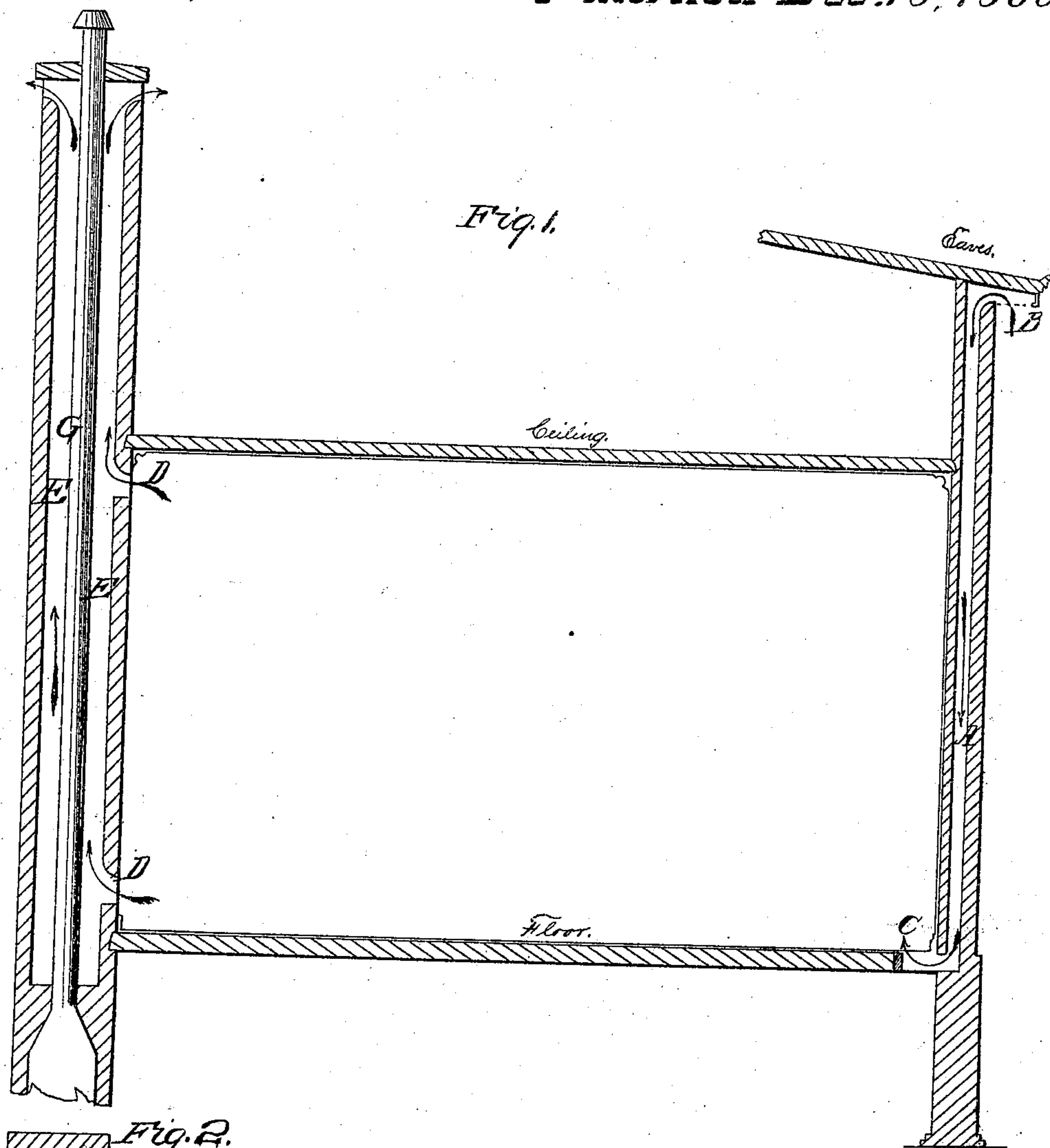


S. M. Stone,

House Ventilator,

No. 30,938,

Patented Dec. 18, 1860.



Witnesses:

R. Fitzgerald
H. L. Gay

Inventor:

Samuel M. Stone

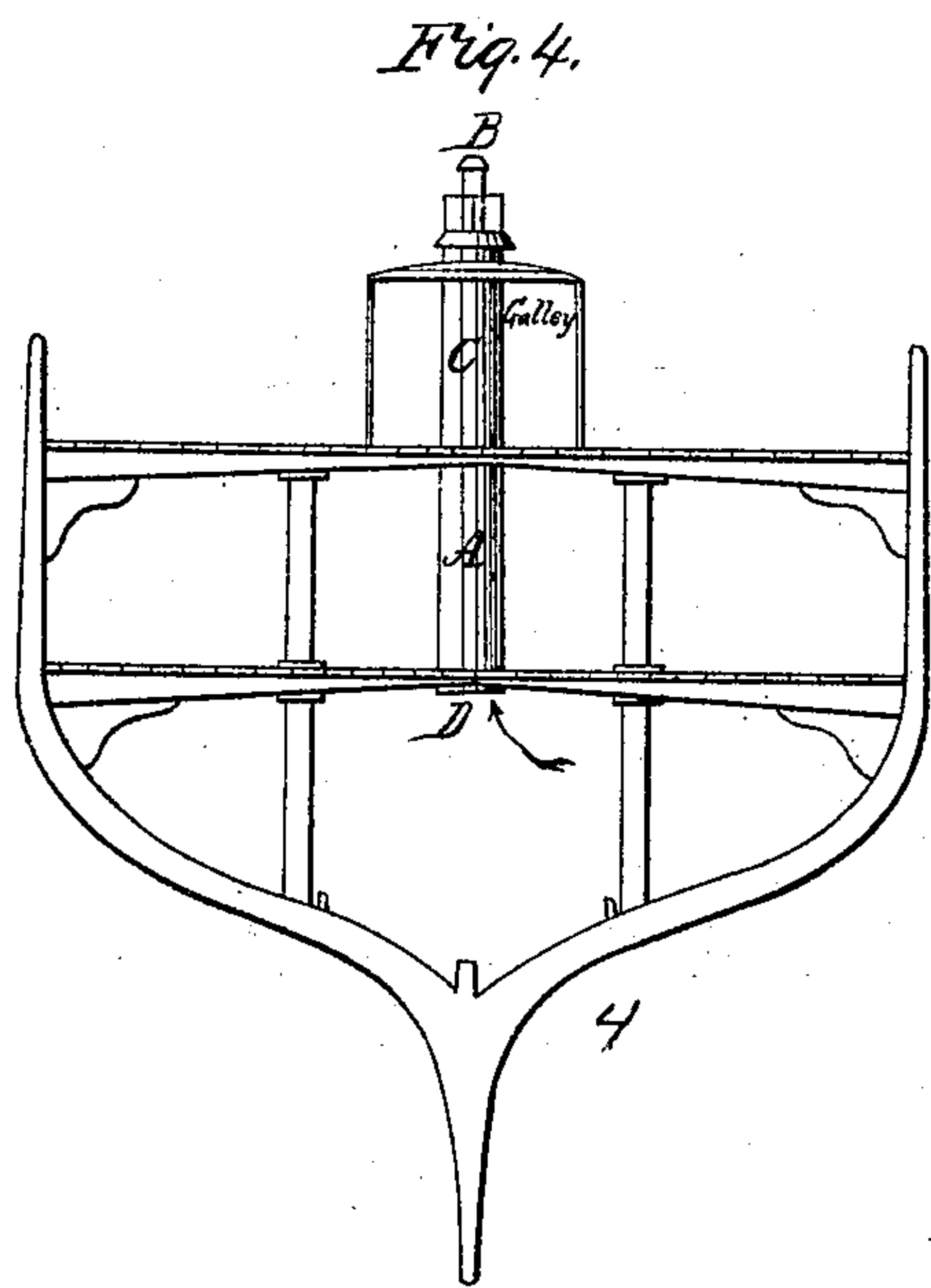
Sheet 2-2 Sheets.

S. M. Stone,

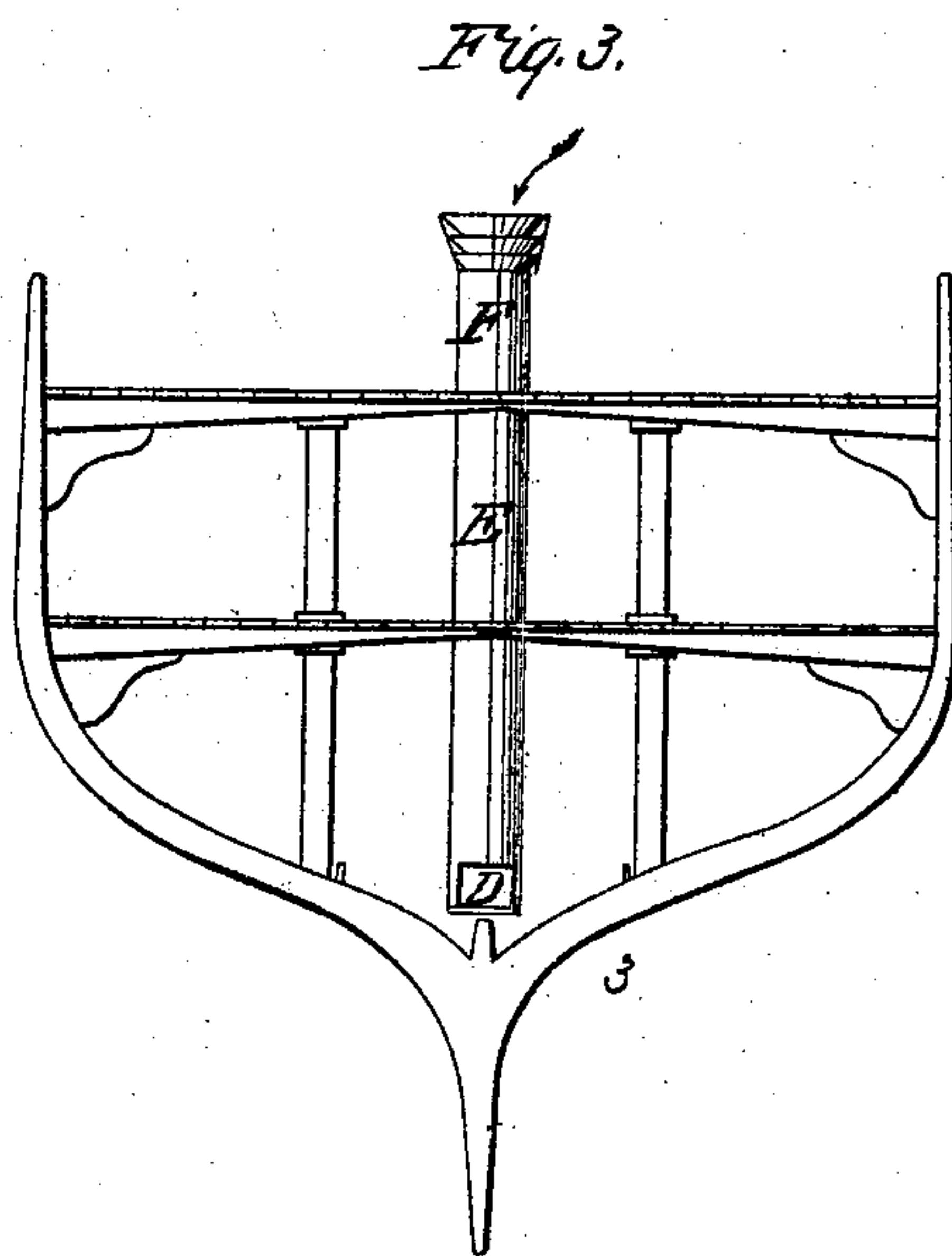
House Ventilator.

No. 30,938,

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Section at C.



Witnesses:
R. Fitzgerald
H. L. Eay

Inventor:
Simey M. Stone

UNITED STATES PATENT OFFICE.

SIDNEY M. STONE, OF NEW HAVEN, CONNECTICUT.

MEANS FOR VENTILATING BUILDINGS, SHIPS, &c.

Specification of Letters Patent No. 30,938, dated December 18, 1860.

To all whom it may concern:

Be it known that I, SIDNEY M. STONE, of the city and county of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Ventilating Buildings, Vessels, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a view of a section of an apartment, or room, cut vertically through the induction and eduction passages in the walls, &c., showing the registers, smoke pipe, ceiling, floor &c. Fig. 2 is a cross section of the eduction passage, and smoke pipe, which indicates the position of the heating apparatus below.

My improvement consists in admitting pure air through the external wall at, or above, the apartment to be ventilated, as at the eaves of a building, or under, or through the deck of a vessel or from the surfaces above, or side of a declivity of a mine &c, so that the pure air may pass down into, and enter the lower part, of each apartment, and as the heated air passes up the other passage, this pure air will be disseminated throughout the apartment, where it will remain until sufficiently heated to pass off through the eduction passage, which surrounds the smoke pipe.

I make a passage as A (or, any number of passages) in the walls of the building, deck, or side of a vessel or mine &c at a sufficiently elevated position to obtain pure air, as at the eaves of a building (as shown at B, Fig. 1,) to allow the pure air either cold or heated to pass into the lower part of the apartment where I have registers as at C to regulate its admission (and also registers at the eduction passages, as at D, D'.) I connect with this passage (or passages) for the admission of the pure air, one or more passages for the foul or vitiated air to escape as

shown at E, E, Fig. 1, and, in cross section, at F, Fig. 2. At the bottom of this passage E, E, (or at any other suitable place) I have a stove (or I use any other suitable heat or steam) to heat the air in the passage E, E, while the heated vapor and smoke will pass up the pipe G. By thus constructing the whole in this way the pure air will pass through the passage A, Fig. 1 and enter the apartment, at or near the bottom as at C Fig. 1.

I use a suitable fire, as in the stove indicated at F Fig. 2 (or in any other place where found convenient), so that the heat radiated from that pipe will rarefy the air in the ventilating passage E, E, and cause it to ascend. Thus the pure air will enter as at the passage B, pass through it as indicated by the darts, enter and be disseminated through the apartment while the foul air will pass out at the registers as at D, D' (mostly at D), Fig. 1, mingling with the rarefied air in the passage E E, and pass off, as indicated by the darts, at a suitable elevation. Therefore my ventilator is suitable and applicable for every kind of apartment, whether above, or below the earth, or on, or in the water.

I am aware that ventilating tubes have been used to convey away the foul air, when the pure air has been (accidentally) admitted at the doors or windows, and that heat has been used to rarefy the air in the eduction passage. I therefore do not claim either of these as such as my invention, but What I claim as my invention and desire to secure by Letters Patent is—

The use of the pure air passage (as A), in combination with the passage (E, E), and smoke pipe G, when the whole is constructed, arranged, and fitted to produce the result as herein described.

SIDNEY M. STONE.

Witnesses:

R. FITZGERALD,
H. L. GAY.